

Appl. No. 10/718,052
Amdt. of October 28, 2005
Reply to O.A. of September 29, 2005

Remarks

The foregoing amendment to the specification is made to correct an obvious misuse of the word "impregnated." In this connection, The Oxford English Reference Dictionary, Second Edition, ©1996, Oxford University Press, in relevant part, defines "impregnate" as

1 (often foll. by *with*) fill or saturate.

Particulate fertilizer which is blended with prodiamine powder so that the prodiamine powder particles stick to the surfaces of the particulate fertilizer cannot fairly be said to be "filled" or "saturated" with the prodiamine. Therefore, the specification has been changed to correctly refer to this prior art product as "prodiamine-blended" rather than "prodiamine-impregnated."

The rejection of the claims under 35 U.S.C. §103 as obvious over the combined teachings of Narayanan et al., Douglass et al. and Tijsma et al. is respectfully traversed. Narayanan et al. and Douglass et al. teach storage stable liquid concentrates of agricultural chemicals which can be easily diluted with water for application to plants in liquid form. Combining these liquid agrochemical compositions or their concentrates with particulate fertilizers is not contemplated.

Tijsma, meanwhile, describes a process for producing a controlled release fertilizer in which core particles of a water-soluble fertilizer are encapsulated with a semi-permeable coating for controlling the release rate of the core material. Although this patent does indicate that herbicides and other agriculturally-active ingredients can be present, they are clearly part of the core, not the coating, as the examiner erroneously indicates. See, col. 7, line 6. Moreover, while this patent also indicates that its semi-permeable coatings can be formed from pyrrolidone or lactone polymers, no fertilizer chemist would confuse or equate such a polymer with the monomers from which it is made.

More importantly, however, there is simply no fair suggestion in Tijsma et al. of a fertilizer product composed of a particulate fertilizer which is impregnated with an agriculturally active chemical, as specified in all claims herein. On the contrary, a critical feature of the Tijsma et al. technology is that its surface material remain as a distinct coating layer with good mechanical properties so that it can encapsulate the core material and thereby act as a good release barrier. See, col. 9, lines 1-9. Fertilizer chemists of ordinary skill would immediately recognize that this clear requirement for encapsulation is the complete antithesis of impregnation in which the impregnant wholly or partially fills voids and other openings in the core.

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Accordingly even when the cited references are considered together, they fail to suggest forming a fertilizer product in which a particulate fertilizer is impregnated with an agriculturally active chemical, as specified in all claims herein.

MPEP §2143 makes clear that an obviousness rejection based on the combination of prior art references is proper only if the references show or suggest all features of the invention being claimed. Here, no prior art reference shows or suggests forming an **impregnated** particulate fertilizer, as claimed. Therefore, this rejection is improper for at least this reason.

MPEP §2143 also makes clear that there must be some motivation or suggestion to combine references in an obviousness rejection. Here, the purported motivation comes from the examiner's apparent misreading of the Tijsma et al. reference (the herbicides are in the **core**, not the coating) as well as disregarding the distinction between a polymer and its monomers. Fertilizer chemists of ordinary skill would not do likewise. Therefore, this rejection is improper for a second, independent reason.

In accordance with the invention, prodiame is combined with particulate fertilizer in a new and better way than done in the past. A fertilizer chemist who faced the same objective, i.e. who desired to combine prodiame with particulate fertilizer in a new and better way, would have rejected the Narayanan et al. and Douglass et al. references altogether since they relate to liquid agrochemicals only. Instead, the fertilizer chemist would have combined the powdered prodiame powder already used in making similar blends with the ingredients forming the core of the Tijsma et al. fertilizer, since this is the way Tijsma et al. teaches such combinations should be made. Applicant's decision to reject this technique and to apply a wholly different approach represents a complete and unobvious departure from the prior art.

If any additional fees are due, please charge our Deposit Account No. 03-0172.

Respectfully submitted,

Date _____

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